PPSU

Polyphenylsulfone (PPSU) exhibits impact resistance and chemical resistance more than PEI (ULTEM). It can operate in temperatures up to 180°C. This makes it an excellent choice for under-hood automotive applications and medical devices requiring steam sterilisation. The hydrolysis resistance is excellent compared to other amorphous thermoplastics. Besides that, it also resists common acids and bases over a broad range of temperatures.

Material features:

- High strength and toughness
- Excellent chemical and thermal resistance
- Good hydrolysis resistance
- Flame retardant
- Heat resistance up to 220°C

Filament specs.		
Size	**Ø tolerance**	**Roundness**
1,75mm	± 0,05mm	≥ 95%
2,85mm	± 0,10mm	≥ 95%

Material properties		
Description	**Testmethod**	**Typical value**
Specific gravity	ASTM D792	1,29 g/cm^3
MFI 365°C/5kg	ASTM D1238	14-20g/10min
Tensile strength at yield	ISO 527	77 MPa
Tensile strength at break	ISO 527	77 MPa
Elongation strain at break	ISO 527	60-120%
Elongation strain at yield	ISO 527	7,3%
Tensile (E) modulus	ISO 527	2410 MPa
Flexural strength	ISO 178	108 MPa
Flexural modulus	ISO 178	2380 MPa
Flame retardancy	UL94	V-0
Impact strength, Izod method 23°C notched	ISO 180	56,2 kJ/m^2
Printing temp.	Internal Method	370±20°C

Additional info:

Recommended temperature for heated bed is >140˚C. Adhesion is possible on different surfaces. PPSU can be used on desktop FDM or FFF technology 3D printers able to reach the high required temperatures. Dry the spool before printing: +4 hours at max. 110°C.

Storage: Cool and dry (15-25˚C) and away from UV light. This enhances the shelf life significantly.

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